ALTERNATIVES

ALTERNATIVE FORMULATION OVERVIEW

Both the National Environmental Policy Act (NEPA) regulations and the BLM resource management planning regulations (43 CFR 1610.4-5) require the formulation of alternatives. Each alternative represents a complete and reasonable plan to guide future management of public land and resources. One required alternative must represent no action which means a continuation of present levels or systems of resource use. The other alternatives must provide a range of choices from resource protection to resource production.

The basic goal in formulating alternatives is to identify combinations of public land uses and resource management practices that respond to the issues.

Alternatives to resolve the two issues of vegetation apportionment and lands were formed around four general themes: no action which is continuation of present management; extensive management of all resources; intensive management with an emphasis on the range resource; and resource protection.

The alternative management plans in this document reflect various emphases in vegetation approtioned to livestock and that retained for watershed and wildlife forage and cover. The amount of mechanical land treatment varies with the intensity of management anticipated under each alternative. Possible range improvements include construction of facilities to enhance livestock distribution (e.g., reservoirs and other water sources and fences) and forage production (e.g., mechanical treatment). Under each alternative, mananagement objectives for public lands are established by the management category into which the land falls.

Issues dictated the way in which alternatives were formulated. Lands, resources, and programs administered by the BLM are proposed for changes in management based on the preferred means of resolving all issues. Those lands, resources, and programs not affected by the resolution of any issue will continue to be managed in the future essentially as they are at present. Future changes will be permitted based on case-by-case analyses and in accordance with applicable laws, regulations, and policies.

ALTERNATIVE ELIMINATED FROM DETAILED STUDY

The following alternative was considered as a possible method of resolving specific issues, but was eliminated from detailed study because it proved unreasonable.

No Grazing

The elimination of livestock grazing from the public lands did not surface as an issue during the scoping process; however, it was considered as a possible method of resolving the vegetation apportionment issue. Based on interdisciplinary analysis, the no grazing alternative was eliminated. Resource conditions (vegetation, watershed and wildlife habitat) do not warrant an areawide prohibition of livestock grazing. This is supported by the fact that 77.3 percent of lands suitable for grazing are in good or excellent condition. (See Table 2-1.)

Other reasons this alternative was not analyzed are: (1) the highly fragmented pattern of public lands in the Resource Area, which would necessitate extensive fence construction and maintenance to effectively exclude livestock from the public land. Fencing would not only be extremely costly, but also would disrupt wildlife movement and affect public access; (2) the overall economic and social impacts of no grazing were considered unacceptable.

In summary, implementation of a no grazing alternative is not considered to be feasible or necessary. A complete description of the no grazing alternative, as well as the environmental consequences of such an action, is contained in Appendix A.

MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES

The following management guidance is applicable to, and thus constitutes a part of, all alternatives considered in detail and is subject to the availability of funding and manpower. It is presented here to avoid repetition.

Vegetation Apportionment Issue

Vegetation has been apportioned to various uses and resources. Specific apportionments have been made to livestock and other resources such as watershed maintenance, soils protection and wildlife.

Watershed maintenance and the soils resource require a minimum amount of ground cover to prevent soil erosion and sedimentation problems. Also, the time of year when certain soils are grazed is critical. Wildlife require certain types of vegetation for habitat needs as well as

TABLE 2-1
OVERALL RANGE CONDITION ACRES BY ALLOTMENT CATEGORY

Categorization	Excellent	Good	Fair	Unknown[1]	Unsuitable For Livestock[2]	Grand Total
Maintain (M)	7,645 (6%)	91,560 (66%)	15,843 (11%)	—	23,450 (17%)	138,498 (50%)
Improve (I)	655 (2%)	7,581 (26%)	15,896 (55%)	—	4,963 (17%)	29,095 (11%)
Custodial (C)	14,805 (14%)	63,828 (61%)	14,172 (14%)	8,847 (8%)	3,336 (3%)	104,988 (39%)
TOTALS	23,105	162,969	45,911	8,847	31,749	272,581
Percent of All Public Land	8.5	59.9	16.8	3.2	11.6	100
Percent of Grazable Land	9.6	67.7	19.0	3.7	—	100

[1]Condition class is unknown on these areas.

[2]There are rock outcrop, barren areas and water which is not suitable for livestock grazing.

Source: BLM, 1984

for forage. These requirements are all considered when apportionments are being made and when grazing systems are being established. These are a few examples that show how vegetation apportionment and grazing management have an effect on these resources.

The other resources discussed in this chapter, such as: lands, cultural resources, forestry, paleontology, recreation and minerals, are resources that are not directly related to vegetation apportionment but are considered in multiple-use management. Management actions that may occur as a result of vegetation apportionment may affect these resources, so they are looked at before any on-the-ground actions are implemented (e.g., range improvement construction and mechanical treatment).

Vegetation Monitoring and Evaluation

The actions outlined in the South Dakota RMP will be implemented over a period of 15 years or more. The effects of implementation will be monitored and evaluated over the life of the plan. The general purposes of monitoring and evaluation will be:

(1) To determine if an action is meeting the objective for which it was designed;

(2) To determine unanticipated effects;

(3) To determin if changes in management actions are needed;

(4) To determine if mitigation measures are working as prescribed; and

(5) To provide for continuing comparison of plan benefits versus costs, including social, economic, and environmental.

A monitoring plan will be written for the wildlife, watershed, and grazing management programs. This plan will provide a framework for choosing the study methods that will yield information needed to develop and implement management for the watershed, wildlife, and range resources. Monitoring efforts will focus on allotments in the improve category. The data provided by these studies will be used to evaluate stocking rates, to schedule pasture moves, to determine levels of forage competition, to detect changes in plant communities, and to identify patterns of forage use.

The monitoring intensity of an allotment will be determined by the nature and severity of the resource problems or conflicts that are present. There would be no grazing adjustments made unless adequate monitoring indicated that an adjustment of livestock use would best resolve the resource problem.

Wildlife monitoring will consist of temporary and permanent studies. They will monitor habitat condition and trend; forage availability, composition and vigor; changes in cover and habitat effectiveness; and habitat management objective accomplishment.

Watershed resource monitoring will involve measuring soil erosion. Trends in streambank stability and water quality will be studied with respect to impacts from grazing, mining and forestry activities.

Specific monitoring plans for other programs will be developed if the need arises.

The data collected from the monitoring and evaluation process will provide information regarding the effects of the management actions being taken. If monitoring indicates that significant adverse impacts are occurring or that mitigation measures are not working as desired, management actions would be changed to accomplish objectives. If monitoring indicated that management actions are successfully meeting objectives, the level of monitoring would be reduced.

Categorization of Rangelands

Criteria shown in Chapter One were applied to each allotment prior to alternative development. The result of categorization was: 55 allotments in the maintain category, 13 allotments in the improve category, and 376 allotments in the custodial category.

The total acreage of public land in each management category and range condition class is shown in Table 2-1.

The alternatives will discuss changes in management intensity, resultant changes in range condition and trend, potential land treatments and range improvements that will apply to these allotments.

When vegetation apportionments are discussed in the alternatives, those apportionments pertain to only the M and I category allotments, since no management changes are proposed for the C allotments. The total grazing preference on C allotments is 28,473 AUMs.

There would be no yearlong leases on M or I allotments. Grazing leases would define livestock numbers, class, and seasons.

Prairie Dog and Noxious Weed Control

Prairie dog towns on public land will be inventoried and examined on an as needed basis for presence of associated wildlife species, including those listed as threatened or endangered.

Cooperative studies with other agencies, universities and private groups to accomplish inventories and ecological studies would continue. Where prairie dogs are known to damage public and adjoining private rangelands, management would occur on a case-by-case basis. Sites are first examined for presence of species of concern or threatened or endangered species.

Noxious weeds would be controlled in accordance with BLM policy and South Dakota state law on a case-by-case basis. This would be done in cooperation with range users and other jurisdictions. Biological control would be considered if proven effective. Special precautions would be taken with the use of herbicides around water sources and crucial wildlife habitat.

Range Improvements

Soil and water resources would continue to be evaluated as a part of project level planning. Such evaluations consider the significance of a proposed range improvement project and the sensitivity of soil and water resources. Stipulations would be attached as needed to protect adjacent resources. Soils would be managed to maintain productivity and minimize erosion. Water quality would be monitored and maintained or improved within state and federal standards, and state agencies would be consulted on proposed projects that may significantly affect water quality.

Prior to the approval of all proposed range improvement projects, an interdisciplinary inspection would be done to evaluate the feasibility and impacts of the proposed developments. Recommendations and mitigations are discussed in the field to overcome problems that may exist and these considerations are then taken into account before final approval of the project is given.

Mitigating measures for resource protection on project developments would be as follows:

Soils—Soil specialists identify various chemical and physical properties of the soils in relation to the type of project being proposed. If these soils properties are not adequate, it would be recommended that the project be relocated to a favorable site.

Cultural—Cultural specialists conduct ground inventories to determine if any sites are present which might be eligible for the National Register of Historic Places. As part of the design and construction of range improvements, federal regulations (36 CFR 800) require consideration of the effects of a federal undertaking on sites eligible to the National Register of Historic Places. Determinations of eligibility to the Register and evaluation of effect are made in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer. Protective measures for Register eligible sites can include avoidance, mitigation through data retrieval, and preservation.

Range—Range specialists identify the location for the project and analyze the vegetative and livestock impacts.

Hydrology—Impacts to holders of senior water rights would be addressed before project approval. If downstream water rights or water quality would be affected, alternate sites would be selected.

Wildlife—Wildlife specialists identify the presence of threatened and endangered species, and the location of important wildlife habitat areas in relation to the proposed project site. They consider the time of year of construction in relation to the type of wildlife species in the area. Adjustments would be made considering wildlife values.

Fire Management

The normal fire season for the South Dakota Resource Area starts when the grass begins to cure in early July and extends through the middle of September. Some early fires occur in March or April after snowmelt and before greenup. These fires are usually of low intensity, but they can have a high spread rate. During the normal fire season, fires become more intense when their location is in heavier, forested fuel types.

Fire occurrence within the Resource Area including all ownerships have ranged from four to five fires in a low year to 10 to 12 fires on a high fire occurrence year.

The BLM's current management objectives are to take action on all new fires either on or threatening public lands. Fire suppression on public lands is carried out by the State of South Dakota, Division of Forestry and/or local volunteer fire departments in South Dakota.

No fires are allowed to burn unless addressed by an approved prescribed burn plan or modified suppression plan.

The prescribed fire program within the Resource Area has not been aggressively pursued in the past. There are some areas tenta-

tively identified for prescribed burning. Prescribed burning could be used as an alternative to mechanical treatment.

Wildlife

Wildlife concerns would continue to be addressed in the potential activity plans developed for individual allotments, therefore, impacts from habitat disturbance or destruction would be minimal.

Fences would be constructed so as to minimize movement of big game, utilizing standards outlined in BLM Manual 1737.

Any mechanical treatment and tame pasture conversion proposed on big sagebrush habitat, critical to antelope and sage grouse, would be evaluated on a case-by-case basis to protect that resource. This would be accomplished in close consultation with the South Dakota Department of Game, Fish and Parks.

Wildlife concerns would be addressed on a case-by-case basis early in the discussions of any land conveyed by sale, exchange or for Recreation and Public Purpose patents. Threatened and endangered species habitat would be given special consideration before any land transactions occur.

Lands Issue

Trespass Abatement

Unauthorized uses of public land will be resolved either through termination, authorization by lease or permit, exchange or sale. Decisions will be based on consideration of the following criteria:

—the type and significance of improvements involved;

—conflicts with other resource values and uses, including potential values and uses; and

—whether the unauthorized use is intentional or unintentional.

New cases of unauthorized use generally will be terminated immediately. Temporary permits may be issued to provide short-term authorization, unless the situation warrants immediate cessation of the use and restoration of the land. Highest priority will be given to abatement of the following unauthorized uses:

—new unauthorized activities or uses where prompt action can minimize damage to public resources and associated costs;

—cases where delay may be detrimental to authorized users;

—cases involving special areas, sensitive ecosystems, and resources of national significance; and

—cases involving malicious or criminal activities.

Rights-of-Way

Currently right-of-ways are authorized under FLPMA and the Minerals Leasing Act. Right-of-way applications will continue to be approved on a case-by-case basis. Most of the present rights-of-way applications are for new construction or the upgrading of existing facilities. Rights-of-way are issued under the Mineral Leasing Act of 1920 for activities associated with minerals development and under Title V of FLPMA for all other development. Applicants are encouraged to locate new facilities within existing rights-of-way where possible.

Currently, widths of certain rights-of-way such as pipelines, telephone and electric lines, or cables are being reduced by the use of temporary permits during the construction phase.

Leases, Permits, and Easements

Legitimate uses of public land may be authorized on a case-by-case basis by permits, leases, and easements.

Land use permits may be granted for a maximum of 3 years for uses that require no extensive improvements, construction, or surface disturbance.

Leases may be granted to authorize use of public lands for long-term developments such as cultivation, small trade, or manufacturing concerns.

Easements may be authorized to assure that the use of public land by the public can be maintained and guaranteed if the land passes to private ownership. Easements may be used to protect cultural resources and threatened or endangered animal species on public and adjacent private land, if it is determined to be in the public interest.

Exchanges, Sales, Transfers and Recreational and Public Purposes

For those alternatives specifically addressing the disposal of public lands, the options available to BLM are exchanges, sales and Recreational and Public Purposes Act (R&PP) uses. The areas identified for disposal are outside the retention areas as shown on the Resource Management Plan Map in the map pocket. Adjustments to the land pattern would be made on a

case-by-case basis, which would include consideration of other resource values and the public interest being served and would be contingent upon a site specific analysis.

Decisions regarding sales and exchanges would include, but not be limited to, consideration of the following factors which are not all-exclusive, but represent major factors: habitat for threatened and endangered or sensitive species, riparian areas, fisheries, nesting/breeding habitat for animals, key big game seasonal habitat, developed recreation and recreational access sites, Class A scenery, areas of geologic/paleontological interest, mineral resources, and sites eligible for inclusion on the National Register of Historic Places.

Lands exchanged must be of equal value or the values be equalized by cash payment by either party not to exceed 25 percent of the appraised value of lands or interests in lands transferred out of federal ownership.

The types of land to be acquired by the Federal government through exchange would be:

(1) Lands of cultural, historical, geological or paleontological values;

(2) Lands adjoining or surrounded by large tracts of public lands;

(3) Lands which provide improved access to large tracts of public land;

(4) Lands which through consolidation would increase management efficiency;

(5) Lands which would help meet other resource or recreation needs; and

(6) Lands which would consolidate the mineral estate.

Sales of public land would be made only to qualified applicants in accordance with Section 203 of FLPMA at not less than the appraised fair market value. Lands identified for disposal in this plan do meet the following criteria:

(1) Such tract, because of its location or other characteristics, is difficult and uneconomical to manage as part of the public lands, and is not suitable for management by another federal department or agency; or

(2) Such tract was acquired for a specific purpose and the tract is no longer required for that or any other federal purpose; or

(3) Disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in federal ownership. In addition, State Director guidance requires that disposal of such a surface tract would not unnecessarily interfere with development of the underlying federal mineral resource.

Jurisdictional transfers of federal lands to or from other federal departments or agencies may occur when:

(1) The transfer would result in increased management efficiency and is no longer needed by that department or agency;

(2) The transfer would result in decreased administrative costs to the federal government; and

(3) The transfer would serve the public or national interest.

Conveyances under the R&PP Act would be made to qualified applicants (state, county, local governments and nonprofit organizations) on a case-by-case basis only after careful examination to assure that they would be in the public or national interest. These conveyances usually result in a more beneficial public use such as wildlife reserves, schools and colleges, parks, recreation sites, cemeteries, museums, fairgrounds.

The mineral estate would be reserved to the United States in most land disposals, except as provided under Sections 206 and 209 of FLPMA. These sections state that mineral exchanges and sales could be considered on an individual basis when in the public interest or when the mineral values are shown to be absent or insignificant. Mineral exchanges would be considered either separately or in conjunction with the surface estate.

Land actions would be used to improve the land ownership pattern and provide increased public benefits.

Other Resource Programs

Cultural Resources

Cultural resources are historic and prehistoric properties (sites) which evidence human use or occupation such as homestead remains and

ancient Indian camps. Many of these sites are important to our heritage and are capable of providing important information about the past. They are among those resources recognized and managed under BLM's philosophy of multiple use of the public lands.

The Bureau endeavors to manage cultural resources in a stewardship role for public benefit. This objective is accomplished, in part, through a use-evaluation system designed: (1) to analyze the scientific and sociocultural values of cultural resources; (2) to provide a basis for utilization of cultural resources; (3) to make cultural resources an important part of the planning system; and (4) to identify information needed when existing documentation of actual or potential use of individual sites or properties. The uses are as follows:

1. Sociocultural Use. This category refers to the use of an object (including flora and fauna), structure, or place based on a social or cultural group's perception that the item has utility in maintaining the group's heritage or existence.

2. Current Scientific Use. This category refers to a study or project in progress at the time of evaluation for which scientists or historians are using a cultural resource as a source of information that will contribute to the understanding of human behavior.

3. Management Use. This category refers to the use of a cultural resource by the BLM or other entities interested in the management of cultural resources, to obtain specific information that is needed for the reasonable utilization of such properties or for the development of effective preservation measures.

4. Conservation for Future Use. This category refers to the management of cultural resources by segregating them from other forms of appropriation until specific conditions are met in the future. Such conditions may include the development of research techniques that are presently not available or the exhaustion of all other resources similar to those represented in the protected sample. The category is intended to provide long-term, onsite preservation and protection of select cultural resources.

5. Potential Scientific Use. This category refers to the potential use (utilizing research techniques currently available) of a cultural resource as a source of information that will contribute to the understanding of human behavior.

These uses of public cultural resources by qualified institutions are authorized and monitored by BLM through a permit system. BLM will continue to investigate and prosecute unauthorized use or destruction of significant cultural properties.

Cultural resource management objectives are also accomplished, in part, through development of site or area specific activity plans which identify cultural resource use and protection objectives, establish actions which must be taken to achieve the objectives, and outline procedures for evaluating accomplishments.

Cultural resources will continue to be inventoried and evaluated to adequately consider the effects of proposed BLM actions on cultural properties which may be eligible for the National register of Historic Places. This inventory and evaluation is routinely a part of project level planning and includes consultation with the State Historic Preservation Office and Advisory Council on Historic Preservation per current regulations, policy, and memoranda of agreement. Cultural resources will be evaluated against the National Register criteria.

As time and funds permit, the BLM will continue to conduct inventories under the Cultural Resource Program to find and document cultural properties which qualify for the National Register. These later surveys will be directed toward areas where prior data indicate a possible need for active resource management to protect important sites. The BLM may also acquire scientifically or historically valuable sites through land exchanges, when such a goal is determined to be in the public interest.

Forestry

Forestry products such as firewood, posts, poles and timber are sold on an incidental basis. The forestry resource will continue to be managed at the present level.

Paleontological Resources

Paleontological resources currently are protected by clearance or review action on a case-by-case basis. Avoidance or mitigation of specimens is occasionally called for when there are surface disturbances. Management plans will be developed for significant properties requiring protection or stabilization. Monitoring and recording of specimen locations will continue.

Recreation

The Resource Area has much outdoor recreation potential and moderate demand for developed recreation sites. Management direction will continue to protect the potential recreation values. Recreation facilities consist of six fishing ponds, two creeks stocked with fish and two recreation areas that provide camping, picknicking, fishing and sightseeing. Recreation facilities will continue to be maintained at a modest level. Access to more public land for future recreation potential is one of the long range lands goals.

The entire Resource Area is designated as open to off-road vehicle (ORV) use, except for all areas in the Fort Meade Planning Unit. The Planning Unit was previously designated closed except for designated roads and trails. Restrictions or closures to ORV use may be established if future problems are identified. Due to extremely dry or wet conditions, the Area Manager may prohibit vehicular traffic on public land trails for short periods.

Visual resources will continue to be evaluated as a part of activity and project planning. This evaluation considers the significance of a proposed project and the visual sensitivity of the affected area. Stipulations are attached as appropriate to assure compatibility of projects with protection or enhancement of the visual resources.

Areas of Critical Environmental Concern (ACEC)

There are no ACECs identified in the Resource Area. If such areas are identified in the future and their resource values cannot be protected through other management techniques, ACEC designation may be made.

Minerals

National policy is that private industry is encouraged to explore and develop federal minerals to satisfy national and local need. This policy provides for economically and environmentally sound exploration, extraction and reclamation practices.

Public lands are open and available for mineral exploration and development unless withdrawn or administratively restricted. Mineral development may occur along with other resource uses. Programs to obtain and evaluate current energy and mineral data are encouraged.

BLM mineral management is categorized into leasable, locatable, and saleable minerals. (See Chapter 3, Minerals.) The leasable minerals, including coal and oil and gas, are administered under the Minerals Leasing Act of 1920. Rights to leasable minerals are acquired either by lease on application by prospecting permit or by competitive lease, except for coal which is leased competitively and licensed (Appendix L). Locatable mineral exploration and development on the Resource Area will continue to be administered through existing surface and mineral management regulations (43 CFR 3809 and 3800). The Resource Area will meet the demand for saleable resources through sales or free use permits on a case-by-case basis, as in the past.

Oil and Gas Exploration and Development

The 1980 Programmatic Environmental Assessment (EA) of the BLM oil and gas leasing program in the Miles City District is the policy document for oil and gas activity management in the Resource Area. Alternatives, the proposed action and no leasing, were considered in the EA. See Appendix E for a summary of impacts. Exploration and development on public lands will continue to be managed in accordance with this document. The BLM supervises oil and gas activities on federal minerals from lease issuance and seismic exploration through actual operations and abandonment. BLM also inspects oil and gas lease operations and evaluates geological, engineering, and economic aspects of drilling and production activity to ensure resource protection and proper collection of revenues. (See Appendix D.)

RATIONALE FOR SELECTING THE PREFERRED ALTERNATIVE

Each of the four alternatives considered in detail in the next section represents a comprehensive plan for managing all land and resources based on the management themes of: Alternative A, no action which is continuation of present management; Alternative B, extensive management of all resources; Alternative C; intensive management of resources with an emphasis on the range resource; and Alternative D, resource protection. The alternatives are summarized on Table 2-2. Following an environmental analysis of each alternative and considering planning questions and planning criteria about the alternatives, a single management alternative then could not be selected from any one of the four to most effectively resolve all the issues. However, a mixture of

issue treatments from three of the alternatives arose as the preferred management approach to resolving these concerns.

The Preferred Alternative was structured to include certain aspects of vegetation apportionment from Alternatives A, C and D, and lands from Alternative B and C.

Vegetation Apportionment

The vegetation apportionment proposal selected as the preferred alternative included grazing management actions from three alternatives, Alternative A, Alternative C and Alternative D. These alternatives would apply to specific allotments for grazing management intensity and would provide for a balanced improvement of vegetation, wildlife habitat, and watershed conditions.

Alternative A would apply to 16 allotments, Alternative C would apply to 45 allotments, and Alternative D would apply to seven allotments. The reasons for selecting allotment management under each alternative is as follows: Alternative A—allotment rangelands are in good to excellent condition and the present management level is proper; Alternative C—allotments are in need of monitoring, evaluation and possibly intense management to resolve resource problems and to increase production. The production which could be apportioned to livestock, according to current conditions and range site guides, is exceeded by the grazing preference on 31 of the 45 allotments (68%). Sixteen of those 31 allotments (52%) have fair condition ranges; and Alternative D—allotments have riparian areas which have potential for improvement. This alternative most effectively resolves the planning questions of vegetation apportionment among livestock, watershed and wildlife and the effect of this apportionment on multiple-use resource management; and allotment categorization. It also makes full use of all planning criteria concerning this issue.

Lands

The lands portion from Alternatives B and C were selected for preferred because they best address the planning questions of repositioning the public lands, increasing management efficiency, increasing public access and enhancing the ability to acquire lands with high public values. Under this theme, improved land ownership patterns would be achieved using exchange as the preferred method of land transaction, but also would allow sales as a method of disposal. Exchanges are preferred by the BLM and the public. Public land would largely remain under federal ownership. Transactions would only be made after careful consideration of all criteria and would cause the fewest adverse impacts and the most beneficial impacts.

PREFERRED ALTERNATIVE

This alternative is a mix of the other alternatives. It provides for resource management which best resolves the planning questions and criteria and includes full consideration of multiple-use and environmental consequences.

Vegetation Apportionment

In the short term (5 years), vegetation apportionment for livestock would be 45,305 AUMs with watershed and wildlife forage and cover receiving 116,103 AUMs for a total of 161,408 AUMs. In the long term (over 15 years), vegetation apportionment for livestock would be 50,367 AUMs (a 5,062 AUM increase) with watershed and wildlife forage and cover receiving 127,808 AUMs (a 11,705 AUM increase) for a total of 178,175 AUMs. Livestock use by individual allotment is shown in Appendix B.

Adjustments in the livestock apportionment could be made if monitoring showed a significant change in the allotment grazing capacity as a result of management actions applied in this alternative. Vegetation use adjustments would be based on site specific monitoring studies, which determine proper use as reflected by trend in plant species composition and soil erosion condition. Adjustments would be made after a period of monitoring (not to exceed 5 years) to acquire data adequate to support an adjustment and after coordination and consultation with the operator.

This alternative would result in 31,783 acres of public range improving from fair to good or better condition as a result of changes in grazing management, range improvements, mechanical treatment and tame pasture development. Approximately 1,663 acres of the fair condition range could be mechanically treated if it did not respond to changes in grazing management. Mechanical treatments could include scalping, chiseling, contour furrowing, ripping, interseeding and chaining. Other treatments could include herbicides and prescribed fire. A total of 7,372 acres, regardless of condition, has the potential to be converted to tame pasture. The

TABLE 2-2
SUMMARY OF ALTERNATIVES

Issue	Preferred Alternative	Alternative A
Vegetation Apportionment	Vegetation apportionment would be: Livestock: Short Term (AUMs) 45,305; Long Term (AUMs) 50,367 Rangeland Watershed and wildlife forage and cover: Short Term (AUMs) 116,103; Long Term (AUMs) 127,808 TOTAL: Short Term (AUMs) 161,408; Long Term (AUMs) 178,175 Management actions for the 68 M and I allotments have been selected from Alternative A for 16 allotments, from Alternative C for 45 allotments and from Alternative D for seven allotments. Fair condition ranges would be improved to good or better on 31,783 acres. About 1,663 acres of the fair condition range could be mechanically treated if they did not respond to grazing management. Tame pasture development could occur on 7,372 acres regardless of present condition (513 acres are in fair condition). Vegetation and and erosion conditions would improve on 6,082 acres of fragile soils because grazing would be deferred until after the wet spring season. Livestock would be excluded from 1,331 acres of riparian areas on seven allotments and vegetation conditions would approach climax in those areas and then level off and stagnate. Fencing and water developments would be required, in addition to the normal two miles of fence and eight water sources, to protect riparian areas. Prairie dog management and noxious weed control would occur as necessary; acres of occurrence on public lands are unknown.	Vegetation apportionment on M and I allotments: Livestock: Short Term (AUMs) 45,305; Long Term (AUMs) 45,305 Rangeland Watershed and wildlife forage and cover: Short Term (AUMs) 116,103; Long Term (AUMs) 128,287 TOTAL: Short Term (AUMs) 161,408; Long Term (AUMs) 173,592 There would be a total of 31,783 acres of fair condition range improved to good or better condition on M and I allotments through grazing management. Increase in vegetation would be apportioned to uses other than livestock. Two miles of fence and eight water sources would be replaced or maintained annually. Priaire dog management and noxious weed control would occur as necessary; acres of occurrence on public lands are unknown.
Lands	Over the long term (15 year), a total of 85,000 acres would be categorized for disposal. Jurisdictional transfers with other federal agencies and exchanges with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for other exchanges. Disposals under the Recreation Public Purposes Act would continue on a case-by-case basis.	Adjustments to the land pattern would be made on a case-by-case basis. Over the long term, there would be an estimated 3,000 acres sold and 15,000 acres exchanged. Disposal under the Recreation and Public Purpose Act would continue on a case-by-case basis.

TABLE 2-2 (continued)
SUMMARY OF ALTERNATIVES

Alternative B			Alternative C			Alternative D		
Vegetation apportionment on M and I allotments:	Short Term (AUMs)	Long Term (AUMs)	Vegetation apportionment on M and I allotments:	Short Term (AUMs)	Long Term (AUMs)	Vegetation apportionment on M and I allotments:	Short Term (AUMs)	Long Term (AUMs)
Livestock	45,305	42,934	Livestock	45,305	57,512	Livestock	45,305	53,493
Rangeland Watershed and wildlife forage and cover	116,103	128,802	Rangeland Watershed and wildlife forage and cover	116,103	130,257	Rangeland Watershed and wildlife forage and cover	116,103	137,460
TOTAL	161,408	171,736	TOTAL	161,408	187,769	TOTAL	161,408	190,953
There would be a total of 31,783 acres of fair condition range improved to good or better condition through grazing management and mechanical treatment. Two miles of fence and eight water sources would be constructed annually and those water sources having wildlife values would be fenced. About 1,666 acres of the fair condition range could be mechanically treated over the long term. Prairie dog management and noxious weed control would occur as necessary; acres of occurrence on public lands are unknown.			There would be a total of 31,783 acres of fair condition range improved to good or better condition through grazing management, mechanical treatment and tame pasture development. Two miles of fence and eight water sources would be constructed annually and those water sources having wildlife values would be fenced. About 1,666 acres of the fair condition range could be mechanically treated and 8,115 acres could be converted to tame pasture regardless of present condition (1,995 acres are in fair condition) over the long term. Prairie dog management and noxious weed control would occur as necessary; acres of occurrence on public lands are unknown.			A total of 31,783 acres of fair range would be improved to good or better condition. Livestock would be excluded from 1,560 acres of riparian areas and vegetation would approach climax in those areas and then level off and stagnate. Vegetation and erosion conditions would improve on 29,306 acres of fragile soils because grazing would be deferred until after the wet spring season. Fencing and water development would be required, in addition to the normal two miles of fence and eight water sources, to protect riparian and fragile soil areas. About 1,663 acres of the fair condition range could be mechanically treated and 6,725 acres of tame pasture could be developed (1,466 acres are in fair condition). Prairie dog management and noxious weed control would occur as necessary; acres of occurrence on public lands are unknown.		
Over the long term (15 years), a total of 85,000 acres would be categorized for disposal. Jurisdictional transfers with other federal agencies and exchanges with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for exchanges. Disposal under the Recreation and Public Purposes Act would continue on a case-by-case basis.			Over the long term (15 years), a total of 85,000 acres would be categorized for disposal. Jurisdictional transfers with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres over the long term. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for other exchanges. Disposal under the Recreation and Public Purposes Act would continue on a case-by-case basis.			Lands would be retained under existing ownership patterns. No sales or exchanges would take place. Recreation and Public Purposes Act requests would be addressed on a case-by-case basis.		

increase due to range condition improvement and mechanical treatment would be apportioned to livestock (25%) and to watershed and wildlife forage and cover (75%). Vegetation on lands converted to tame pasture would be apportioned primarily to livestock with the other resources receiving only incidental use.

An adjustment of livestock use would be made on fragile soils (6,082 acres) during the wet season of the year and manageable riparian areas (1,331 acres) would be excluded from livestock use on seven allotments.

The "I" category allotments would be upgraded to good or better condition. The "M" allotments would either be maintained in good condition or upgraded, and the "C" allotments would continue under custodial management.

Range improvements over a 15-year period would include about 15 management fences, each averaging 2 miles in length, needed to implement grazing systems. There would also be 120 water sources developed. Construction of approximately a quarter mile of fence and installation of a stock tank would be required for each reservoir fenced because of wildlife values. The primary beneficiary would be responsible for all maintenance.

Estimated cost of range improvements would be $721,560 over the 15-year period, based on the current average cost per improvement. (See Appendix C.) This is a maximum amount as it assumes that all treatments would be required in every case. Actual costs would be lower because less costly methods would be applied first and would solve the resource problem in most cases.

The four existing Allotment Management Plans (AMPs), including 33,565 acres of public land, would continue. Grazing systems which could be used include rest and deferred rotation, deferred or seasonal use, or other methods. Custodial allotments would generally have season and number leases.

The range condition (based on vegetation and soils) of the public land in each allotment has been analyzed in relation to the production potential of range sites, using the SCS Technical Guides as the criteria. Vegetation use has been estimated on the basis of proper use. Management proposals are based on the adequacy of present management and the need for change to improve range condition and develop site potential.

Range condition information is found in Table 2-1 and the allotment categorization methods are the same as described in the Management Guidance Common to All Alternatives under Categorization.

The management of wildlife habitat would include monitoring the condition of areas known to be of high value to wildlife and protecting valuable wildlife habitat in the development and implementation of activity plans.

Manageable riparian areas (1,331 acres) would be fenced to exclude livestock, and livestock waters would be moved outside of these areas. As funding permits, new livestock waters would be constructed in such a manner as to support a viable fish population where possible. Islands would be constructed where possible, and selected new water sources would be partially or completely fenced to exclude livestock.

Lands

Over the long term a total of 85,000 acres of public land would be categorized as having potential for disposal. Jurisdictional transfers with the Forest Service and USDI agencies, and exchanges with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres over the long term. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for other exchanges. Disposals under the Recreation and Public Purposes Act would continue on a case-by-case basis. All land actions would be in accordance with federal and state laws and regulations. Bureau and Departmental policy would be followed in all land transactions.

ALTERNATIVE A

This alternative is a continuation of the present management.

Vegetation Apportionment

Present vegetation apportionment of 45,305 Animal Unit Months (AUMs) would be maintained in both the short (5 years) and long term (over 15 years) for livestock. Vegetation apportionment for watershed and wildlife forage and cover would be 116,103 AUMs in the short term and 127,808 AUMs in the long term. Livestock use by individual allotment is shown in Appendix B.

Estimated cost of maintenance or replacement of 30 miles of fence and 120 water sources would

be $504,000 over the 15-year period, based on the current average cost per improvement. (See appendix C.) This is a maximum amount. Actual costs would be lower because less costly methods would be applied first and would solve the resource problem in most cases.

Vegetation use adjustments would be based on site specific monitoring studies which determine proper use as reflected by trend in plant species composition and soil erosion.

This alternative would result in 31,183 acres of public range improving from fair to good or better condition as a result of grazing management and/or range improvements.

Four BLM administered AMPs, including 33,565 acres of public land, would continue. (See Chapter 3, Range.)

Current grazing systems would be continued. These systems include rest and deferred rotation, deferred or seasonal use, or other methods. Season and number allotments generally have deferred or seasonal use systems. Custodial allotments generally have seasonal use coordinated with the use of private lands.

The range condition (based on vegetation and soils) of the public land in each allotment has been analyzed in relation to the production potential of range sites, using the SCS Technical Guides as the criteria. Vegetation use has been estimated on the basis of proper use. Management proposals are based on the adequacy of present management and the need for change to improve range condition and develop site potential.

The management of wildlife habitat would continue at the current level. This consists of monitoring the condition of areas known to be of high value to wildlife and protecting valuable wildlife habitat in the development and implementation of activity plans. As funding permits, a certain amount of on-the-ground project development would continue, e.g., installation of bird nesting boxes, bird ramps.

Lands

Over the long term, a total of 18,000 acres of public land would be categorized as having potential for disposal through sale or exchange. On an annual basis, approximately 200 acres would be considered for sale and 1,000 acres would be considered for exchange. Disposals under the Recreation and Public Purposes Act would continue on a case-by-case basis. All land actions would be in accordance with federal and state laws and regulations. Bureau and departmental policy would be followed in all land transactions.

ALTERNATIVE B

This alternative emphasizes the extensive (lower level) management of resources with consideration for all multiple-use values.

Vegetation Apportionment

In the short term (5 years,) on M and I allotments, vegetation apportionment for livestock would be 45,305 AUMs with watershed and wildlife forage and cover receiving 116,103 AUMs for a total of 161,408 AUMs. In the long term (over 15 years), vegetation apportionment for livestock would be 42,934 AUMs (a 2,371 AUM decrease) with watershed and wildlife forage and cover receiving 128,802 AUMs (a 12,699 AUM increase) for a total of 171,736 AUMs. Livestock use by individual allotment is shown in Appendix B.

Adjustments in the livestock apportionment could be made if monitoring showed a significant change in the allotment grazing capacity as a result of management actions applied in this alternative. Vegetation use adjustments would be based on site specific monitoring studies, which determine proper use as reflected by trend in plant species composition and soil erosion condition. Adjustments would be made after a period of monitoring (not to exceed 5 years) to acquire data adequate to support an adjustment and after coordination and consultation with the operator.

This alternative would result in 31,783 acres of public range improving from fair to good or better condition as a result of changes in grazing management, range improvements and mechanical treatment. Approximately 1,666 acres of the fair condition range could be mechanically treated, if it did not respond to changes in grazing management. Mechanical treatments could include scalping, chiseling, contour furrowing, pitting, ripping, interseeding and chaining. Other treatment could include herbicides and prescribed fire.

"I" category allotments would be upgraded to good or better condition. "M" allotments would either be maintained in good condition or upgraded. "C" allotments would continue under custodial management.

Range improvements over a 15-year period would include about 15 management fences, each averaging 2 miles in length, needed to implement grazing systems. There would also be 120 water sources developed. Construction of approximately a quarter mile of fence and installation of a stock tank would be required for each reservoir fenced because of wildlife values. The primary beneficiary would be responsible for all maintenance.

Estimated cost of range improvements would be $537,320, over the 15-year period, based on the current average cost per improvement. (See Appendix C.) This is a maximum amount as it assumes that all treatments would be required in every case. Actual costs would be lower because less costly methods would be applied first and would solve the resource problem in most cases.

The four existing AMPs, including 33,565 acres of public land, would continue. Grazing systems which could be used include rest and deferred rotation, deferred or seasonal use, or other methods. Custodial allotments would generally have season and numbers leases.

The range condition (based on vegetation and soil) of the public land in each allotment has been analyzed in relation to the production potential of range sites, using the SCS Technical Guides as the criteria. Vegetation use has been estimated on the basis of proper use. Management proposals are based on the adequacy of present management and the need for change to improve range condition and develop site potential.

Range condition information is found in Table 2-1 and the allotment categorization method is the same as described in the Management Guidance Common to All Alternatives under Categorization.

The management of wildlife habitat would include monitoring the condition of areas known to be of high value to wildlife and protecting valuable wildlife habitat in the development and implementation of activity plans. As funding permits, new livestock waters would be constructed in such a manner as to support a viable fish population where possible. Islands would be constructed where possible, and selected new water sources would be partially or completely fenced to exclude livestock.

Lands

Over the long term, a total of 85,000 acres of public land would be categorized as having potential for disposal through sale or exchange. Jurisdictional transfers with the Forest Service and USDI agencies, and exchanges with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres over the long term. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for other exchanges. Disposals under the Recreation and Public Purposes Act would continue on a case-by-case basis. All land actions would be in accordance with federal and state laws and regulations. Bureau and departmental policy would be followed in all land transactions.

ALTERNATIVE C

This alternative is intensive management with an emphasis on the range resource.

Vegetation Apportionment

In the short term (5 years), on M and I allotments, vegetation apportionment to livestock would be 45,305 AUMs with watershed and wildlife forage and cover receiving 116,103 AUMs for a total of 161,408 AUMs. In the long term (over 15 years), vegetation apportionment for livestock would be 57,512 AUMs (a 12,207 AUM increase) with watershed andwildlife forage and cover receiving 130,257 AUMs (a 14,154 AUM increase) for a total of 187,769 AUMs. Livestock use by individual allotment is shown in Appendix B.

Adjustments in the livestock apportionment could be made if monitoring showed a significant change in the allotment grazing capacity as a result of management actions applied in this alternative. Vegetation use adjustments would be based on site specific monitoring studies, which determine proper use as reflected by trend in plant species composition and soil erosion condition. Adjustments would be made after a period of monitoring (not to exceed 5 years) to acquire data to support an adjustment and after consultation and coordination with the operator.

This alternative would result in 31,783 acres of public range improving from fair to good or better condition as a result of changes in grazing management, range improvements, mechanical treatment and tame pasture development.

Approximately 1,666 acres of the fair condition range could be mechanically treated if it did not

respond to changes in grazing management. Mechanical treatments could include scalping, chiseling, contour furrowing, pitting, ripping, interseeding and chaining. Other treatments could include herbicides and prescribed fire. A total of 8,115 acres, regardless of condition, have the potential to be converted to tame pasture. The increase due to range condition improvement and mechanical treatment would be apportioned to livestock (25%) and to watershed and wildlife forage and cover (75%). Vegetation on lands converted to tame pasture would be apportioned primarily to livestock with the other resources receiving only incidental use.

"I" category allotments would be upgraded to good or better condition. "M" allotments would either be maintained in good condition or upgraded. "C" allotments would continue under custodial management.

Range improvements over a 15-year period would include about 15 management fences, each averaging 2 miles in length, needed to implement grazing systems. There would also be 120 water sources developed. Construction of approximately a quarter mile of fence and installation of a stock tank would be required for each reservoir fenced because of wildlife values. The primary beneficiary would be responsible for all maintenance.

Estimated cost of range improvements would be $740,195 over the 15-year period, based on the current average cost per improvement. (See Appendix C.) This is a maximum amount as it assumes that all treatments would be required in every case. Actual costs would be lower because less costly methods would be applied first and would solve the resource problem in most cases.

The four existing AMPs, including 33,565 acres of public land, would continue. Grazing systems which could be used include rest and deferred rotation, deferred or seasonal use, or other methods. Custodial allotments would generally have season and number leases.

The range condition (based on vegetation and soils) of the public land in each allotment has been analyzed in relation to the production potential of range sites, using the SCS Technical Guides as the criteria. Vegetation use has been estimated on the basis of proper use. Management proposals are based on the adequacy of present management and the need for change to improve range condition and develop site potential.

Range condition information is found in Table 2-1 and the allotment categorization methods are the same as described in the Management Guidance Common to All Alternatives Under Categorization.

The management of wildlife habitat would include monitoring the condition of areas known to be of high value to wildlife and protecting valuable wildlife habitat in the development and implementation of activity plans. As funding permits, new livestock waters would be constructed in such a manner as to support a viable fish population where possible. Islands would be constructed where possible and selected new water sources would be partially or completely fenced to exclude livestock.

Lands

Over the long term, a total of 85,000 acres of public land would be categorized as having potential for disposal through sale or exchange. Jurisdictional transfers with the Forest Service and USDI agencies, and exchanges with the State of South Dakota would be considered on a case-by-case basis on up to 65,000 acres over the long term. On an annual basis, approximately 300 acres would be considered for sale and 1,000 acres would be considered for other exchanges. Disposal under the Recreation and Public Purposes Act would continue on a case-by-case basis. All land actions would be in accordance with federal and state laws and regulations. Bureau and Departmental policy would be followed in all land transactions.

Alternative D

This alternative emphasizes intensive management while protecting riparian areas and fragile soils.

Vegetation Apportionment

Emphasis would be placed on watershed and wildlife values. In the short term (5 years) on M and I allotments, vegetation apportionment to livestock would be 45,305 AUMs with rangeland and watershed maintenance, wildlife forage and cover receiving 116,103 AUMs for a total of 161,408 AUMs. In the long term (over 15 years), vegetation apportionment for livestock would be 53,493 AUMs (a 8,188 AUM increase) with watershed and wildlife forage and cover receiving 137,460 AUMs (a 21,357 AUM increase) for a total of 190,953 AUMs. Livestock use by individual allotment is shown in Appendix B.

A deferment of livestock use would be made on fragile soils (30,436 acres) during the wet season of the year and riparian areas (1,560 acres) would be excluded from livestock use.

Adjustments in the livestock apportionment would be made if monitoring showed a significant change in the allotment grazing capacity as a result of management actions applied in this alternative. Vegetation use adjustments would be based on site specific monitoring studies which determine proper use as reflected by trend in plant species composition and soil erosion condition. Adjustments would be made after a period of monitoring (not to exceed 5 years) to acquire data to support an adjustment and after consultation and coordination with the operator.

This alternative would result in 31,783 acres of public range improving from fair to good or better condition as a result of changes in grazing management, range improvements, mechanical treatment and tame pasture development. Approximately 1,663 acres of fair condition range could be mechanically treated if they did not respond to changes in grazing management. Mechanical treatments could include scalping, chiseling, contour furrowing, pitting, ripping, interseeding and chaining. Other treatment could include herbicides and prescribed fire. A total of 6,725 acres, regardless of condition, has the potential to be converted to tame pasture.

"I" category allotments would be upgraded to good or better condition. The "M" allotments would either be maintained in good condition or upgraded, and the "C" allotments would continue under custodial management.

Range improvements over a 15-year period would include about 15 management fences, each averaging 2 miles in length, needed to implement grazing systems. There would also be 120 water sources developed. Construction of approximately a quarter mile of fence and installation of a stock tank would be required for each reservoir fenced because of wildlife values. Water sources that are presently in a riparian area would have to be replaced. The primary beneficiary would be responsible for all maintenance.

Estimated cost of range improvements would be $705,385 over the 15-year period, based on the current average cost per improvement. (See Appendix C.) This is a maximum amount as it assumes that all treatments would be required in every case. Actual costs would be lower because less costly methods would be applied first and would solve the resource problem in most cases.

The range condition (based on vegetation and soils) of the public land in each allotment has been analyzed in relation to the production potential of range sites, using the SCS Technical Guides as the criteria. Vegetation use has been estimated on the basis of proper use. Management proposals are based on the adequacy of present management and the need for change to improve range condition and develop site potential.

Range condition information is found in Table 2-1 and the allotment categorization method is the same as described in the Management Guidance Common to All Alternatives for Categorization.

The four existing AMPs, including 33,565 acres of public land,would continue. Grazing systems which could be used include rest and deferred rotation, deferred or seasonal use, or other methods. Custodial allotments would generally have season and number leases.

The management of wildlife habitat would include monitoring the condition of areas known to be of high value to wildlife and protecting valuable wildlife habitat in the development and implementation of activity plans. Riparian areas (1,560 acres) would be fenced to exclude livestock, and livestock waters would be moved outside of these areas. As funding permits, new livestock waters would be constructed in such a manner as to support a viable fish population where possible. Islands would be constructed where possible and selected new water sources would be partially or completely fenced to exclude livestock.

Lands

The public lands would be retained under existing ownership patterns except for Recreation and Public Purposes (R&PP) actions. No sales or exchange actions would take place. No Bureau-initiated R&PP proposals would be considered, but R&PP applications would be considered from qualified applicants.

SUMMARY OF THE CUMULATIVE IMPACTS

Table 2-3, Summary of the Cumulative Impacts, is an abbreviated display of impacts addressing each alternative, as required by regulation. The full description of impacts by alternative, is contained in Chapter 4.

TABLE 2-3
SUMMARY OF THE CUMULATIVE IMPACTS

Affected Resource	Preferred Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Cultural	The impacts on the cultural resource would be insignificant.	The impacts on the cultural resource would be insignificant.	The impacts on the cultural resource would be insignificant.	The impacts on the cultural resource would be insignificant.	The impacts on the cultural resource would be insignificant.
Forestry	The impacts on the forest resource would be insignificant.	The impacts on the forest resource would be insignificant.	The impacts on the forest resource would be insignificant.	The impacts on the forest resource would be insignificant.	There would be no impacts on the forest resource.
Paleontologic	The impacts on the paleontologic resource would be insignificant.	The impacts on the paleontologic resource would be insignificant.	The impacts on the paleontologic resource would be insignificant.	The impacts on the paleontologic resource would be insignificant.	The impacts on the paleontologic resource would be insignificant.
Recreation	Moderately beneficial impacts on the recreation resource would be significant.	Moderately beneficial impacts on the recreation resource would be significant.	Moderately beneficial impacts on the recreation resource would be significant.	Moderately beneficial impacts on the recreation resource would be significant.	The impacts on the recreation resource would be insignificant.
Minerals	The impacts on the minerals resource would be insignificant.	The impacts on the minerals resource would be insignificant.	The impacts on the minerals resource would be insignificant.	The impacts on the minerals resource would be insignificant.	There would be no impacts on the minerals resource.
Soils	There would be insignificant windborne soil loss of 245 acre feet. Moderately beneficial impacts on 7413 acres of fragile soils and riparian areas would be significant. Other impacts on the soil resource would be insignificant.	There would be insignificant windborne soil loss of 9 acre feet. Other impacts on the soil resource would be insignificant.	There would be insignificant windborne soil loss of 59 acre feet. Other impacts on the soil resource would be insignificant.	There would be insignificant windborne soil loss of 261 acre feet. Other impacts on the soil resource would be insignificant.	There would be insignificant windborne soil loss of 227 acre feet. Moderately beneficial impacts on 30,866 acres of fragile soils and riparian areas would be significant. Other impacts on the soil resource would be insignificant.
Hydrology	Minor beneficial impacts on sediment loads from 413 acres of fragile soils and riparian areas would be significant. Other impacts would be insignificant.	The impacts on the hydrology resource would be insignificant.	The impacts on the hydrology resource would be insignificant.	The impacts on the hydrology resource would be insignificant.	Minor beneficial impacts on sediment loads from 30,866 acres of fragile soils and riparian areas would be significant. Other impacts on the soil resource would be insignificant.
Range	Moderate beneficial impacts on the trend and condition of the range resource would be significant. Increase of 5062 livestock AUMs would be significant.	Minor beneficial impacts on the trend and condition of the range resource would be significant. There would be no impact on the livestock AUMs.	Minor beneficial impacts on the trend and condition of the range resource would be significant. Decrease of 2371 livestock AUMs would be insignificant (less than 10%).	Moderate beneficial impacts on the trend and condition of the range resource would be significant. Increase of 12,207 livestock AUMs would be significant.	Moderate beneficial impacts on the trend and condition of the range resource would be significant. Increases of 8188 livestock AUMs would be significant.
Wildlife	Moderate beneficial impacts on wildlife resource would be significant. Temporary adverse impacts of mechanical treatments are insignificant.	Moderate beneficial impacts on wildlife resource would be significant.	Moderate beneficial impacts on wildlife resource would be significant. Temporary adverse impacts of mechanical treatments are insignificant.	Moderate beneficial impacts on wildlife resource would be significant. Temporary adverse impacts of mechanical treatments are insignificant.	Moderate beneficial impacts on wildlife resource would be significant. Temporary adverse impacts of mechanical treatments are insignificant.
Lands	Moderate beneficial impacts on the lands resource would be significant.	Moderate beneficial impacts on the lands resource would be significant.	Moderate beneficial impacts on the lands resource would be significant.	Moderate beneficial impacts on the lands resource would be significant.	Opportunity forgone would be a moderate negative significant impact on the lands resource.
Economic & Social	Regional impacts are insignificant. Two operations have decreases and 17 have increases in AUMs that are significant. Impacts to local government revenues resulting from BLM/State exchanges are significant. All other impacts are insignificant.	Regional impacts are insignificant. There are no impacts to operations. All other impacts are insignificant.	Regional impacts are insignificant. One operation has a decrease and eight have increases in AUMs that are significant. Impacts to local government revenues resulting from BLM/State exchanges are significant. All other impacts are insignificant.	Regional impacts are insignificant. Twenty-six operations have increases in AUMs that are significant. Impacts to local government revenues resulting from BLM/State exchanges are significant. All other impacts are insignificant.	Regional impacts are insignificant. One operation has a decrease and 21 operations have increases in AUMS that are significant. All other impacts are insignificant.